

ABSTRACT

Systems and methods are described that facilitate learning a Bayesian network with decision trees *via* employing a learning algorithm to learn a Bayesian network with complete tables. The learning algorithm can comprise a search algorithm that can reverse edges in the Bayesian network with complete tables in order to refine a directed acyclic graph (DAG) associated therewith. The refined complete-table DAG can then be employed to derive a set of constraints for a learning algorithm employed to grow decision trees within the decision-tree Bayesian network.